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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,492	11/21/2003	Thomas Fairfull	11009-0029	7591
22902	7590	04/20/2005	EXAMINER	
CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005			COCKS, JOSIAH C	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,492

Applicant(s)

FAIRFULL, THOMAS

Examiner

Josiah Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Receipt of applicant's amendment filed 1/24/2005 is acknowledged.

### *Drawings*

2. The corrected drawings filed 1/24/2005 are accepted by the examiner.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,368,696 to Reinhardt ("Reinhardt") in view of U.S. Patent No. 4,763,610 to Thomas ("Thomas") (cited in prior office action).

Reinhardt discloses in Figures 1-7 the invention similar to that described in applicant's claims 6-16. In particular, Reinhardt shows a method and apparatus for producing improved combustion in a combustion device wherein a hydrogen-oxygen gas produced from a hydrogen-oxygen generator (30), which is a part of an electrolysis hydrogen generator device (14) is introduced into a carburetor/mixing device (20). A hydrocarbon fuel is also directed to the mixing device

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for mixing with the hydrogen-oxygen gas and then the mixture is then combusted. This method and apparatus serves to reduced the amount of hydrocarbon fuel needed for combustion resulting in better fuel efficiency and reduced air pollution (see col. 4, lines 10-13).

In regard to the limitation that a single stream of hydrocarbon-oxygen gas is supplied to the mixing device, it is noted that Reinhardt teaches the use of two separate lines (34 and 36) supplying hydrogen and oxygen to the mixing device (20). However, these separate lines are included for a specific purpose in allowing separate control valves for each line to individually control the amount of each fluid to the mixing device (see col. 5, lines 45-49). Applicant's invention is unconcerned with individually controlling the amount of hydrogen and oxygen supplied. It has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art and is obvious when the element and its function is not desired. See MPEP § 2144.04(II)(A), see also *In re Karlson*, 136 USPQ 184. Accordingly, elimination of the separate individual control of the hydrogen and oxygen to the mixing device would eliminate the need for separate supply lines, and would result in the use of a single hydrogen-oxygen steam.

To further support the assertion that a single hydrogen-oxygen stream would be obvious, applicant's attention is directed to Thomas. Thomas shows a method and apparatus for supplying hydrogen-oxygen gas from a hydrogen-oxygen generator to a combustion device that is analogous to Reinhardt. In Thomas, there is no requirement for separate individual control of hydrogen and oxygen streams supplied to a carburetor/mixing device (26). Accordingly, only a single hydrogen-oxygen stream is supplied from the hydrogen oxygen generator (10) via line (23) to the mixing device (26). Therefore, it would be obvious to a person of ordinary skill in the

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art that in a situation where separate individual control of the hydrogen and oxygen streams is not required, a single hydrogen-oxygen stream would be used.

In regard to claims 7, 8, 10, 12, 13, 15, and 16, in response to the prior office action, applicant cancelled claims 1-5 and included new claims 6-16. In arguing the patentability of new claims 6-16 over the prior art relied upon the examiner, applicant asserts only that the prior art does not disclose a single hydrogen-oxygen stream supplied to the mixing device. As noted above, a single hydrogen-oxygen stream is considered obvious. As required by 37 C.F.R. § 1.111 in reply to a non-final office action, applicant has the burden of arguing the specific distinctions of applicant's claimed invention that render it free of the prior art. Specifically, 37 C.F.R. § 1.111 section (b), third sentence requires:

"The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references."

Applicant has not argued that the new limitations appearing in newly presented claims 7, 8, 10, 12, 13, 15, and 16 render the claims distinct from the prior art relied upon by the examiner. Accordingly, these limitations are considered to be admitted by applicant to be obvious to a person of ordinary skill in the art and not patentable.

Therefore, applicant's claims 6-16 are not considered to patentably distinguish applicant's invention.

### ***Response to Arguments***

5. Applicant's arguments filed 1/24/2005 have been fully considered but they are not persuasive for the reasons noted above.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on weekdays from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (571) 272-4877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Any questions on access to the Private PAIR system should be directed to the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

jcc  
April 16, 2005

  
JOSIAH COCKS  
PRIMARY EXAMINER  
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